



IFW16

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/888,324

DATE: 08/02/2004  
TIME: 11:51:23

Input Set : N:\LMOORE\PTO.LM.txt  
Output Set: N:\CRF4\08022004\I888324.raw

3 <110> APPLICANT: Juha Punnonen, et al.  
5 <120> TITLE OF INVENTION: NOVEL CO-STIMULATORY MOLECULES  
7 <130> FILE REFERENCE: 0169.310US  
9 <140> CURRENT APPLICATION NUMBER: 09/888,324  
10 <141> CURRENT FILING DATE: 2001-06-22  
12 <150> PRIOR APPLICATION NUMBER: 60/213,946  
13 <151> PRIOR FILING DATE: 2000-06-23  
15 <150> PRIOR APPLICATION NUMBER: 60/241,245  
16 <151> PRIOR FILING DATE: 2000-10-17  
18 <160> NUMBER OF SEQ ID NOS: 312  
20 <170> SOFTWARE: PatentIn Ver. 2.1  
22 <210> SEQ ID NO: 1  
23 <211> LENGTH: 891  
24 <212> TYPE: DNA  
25 <213> ORGANISM: Artificial Sequence  
27 <220> FEATURE:  
28 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
29 nucleotide sequence  
31 <400> SEQUENCE: 1  
32 atgggtcaca caatgaagt gggatcacta ccacccaagg gcccattgcct ctggctctct 60  
33 cagcttttgg tgctcaactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120  
34 accaaaaagag tggaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180  
35 ctgacaagcc ttccggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240  
36 ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300  
37 ccccgatttgc tgatcctggc tctgcgcctg tcggacagtgc gcacccatc ctgtgttatt 360  
38 cagaaggctg ttttggaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420  
39 atcagagctg acttccctgt ccctaccata aatgatcttgc gaaatccatc tcctaataatc 480  
40 agaaggctaa ttgtcaac ctctggaggt ttccaaggc cccacccatc ctggttggaa 540  
41 aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600  
42 tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660  
43 gtcaaggatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaccc 720  
44 cttctgtcta atcagcacct gacctggacc attattatcc cagtcctcagc atttgggatt 780  
45 tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840  
46 cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccatg a 891  
49 <210> SEQ ID NO: 2  
50 <211> LENGTH: 900  
51 <212> TYPE: DNA  
52 <213> ORGANISM: Artificial Sequence  
54 <220> FEATURE:  
55 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
56 nucleotide sequence  
58 <400> SEQUENCE: 2  
59 atggggccaca cgctgaggcc qggaaactcca ctgcccagggt gtctacacacct caagctctgc 60



P.6

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/888,324

DATE: 08/02/2004  
 TIME: 11:51:23

Input Set : N:\LMOORE\PTO.LM.txt  
 Output Set: N:\CRF4\08022004\I888324.raw

60 ctgctcctgg cgctggcggg tctccacttc tcttcaggtt tcagccaggt caccaagtcg 120  
 61 gtgaaagaaa tggcagcact gtcctgtat tacaacattt ctatcgatga actggcgaga 180  
 62 atgcgcataat actggcagaa ggaccaacag atggtgctga gcatcatctc tggcaagtg 240  
 63 gaagtgtggc ctgagtacaa gaaccgcacc ttcccccaca tcattaacaa cctctccctt 300  
 64 atgatcctgg cactgcgcct gtcggacaag ggcacctaca cctgcgtgg tcaagaagaat 360  
 65 gagaacgggt ctttcagacg ggagcacctg acctccgtga cactgtccat cagagctgac 420  
 66 tcccctgtcc cttagataac tgacatttga catcccgccc ctaatgtgaa aaggataaga 480  
 67 tgctccgcct ctggaggattt tccagagcct cgccctcgccct ggatggaaga tggagaagaa 540  
 68 ctaaacgcgg tcaacacgac gggtgaccag gatttggaca cggagctcta cagcgtcagc 600  
 69 agtgaactgg atttcaatgt gacaataac cacagcatcg tggatgttcat caaatacggg 660  
 70 gagctgtcggt tggatgttcat tttccatgttgg agcaaaaccca agcaggagcc tccattgtat 720  
 71 cagttccat tctgggtcat tatcccagta agtgggtctt tggatgttcat tgggttagtt 780  
 72 ctctactgccc tggcctgcag acatgttgcg aggtggaaaa gaacaagaag gaatgaagag 840  
 73 acagtgggaa ctgaaaggct gtccctatac tacttaggtt ctgcgcataatc ctcgggctga 900  
 76 <210> SEQ ID NO: 3  
 77 <211> LENGTH: 900  
 78 <212> TYPE: DNA  
 79 <213> ORGANISM: Artificial Sequence  
 81 <220> FEATURE:  
 82 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 nucleotide sequence  
 85 <400> SEQUENCE: 3  
 86 atggggccaca cgctgaggcc gggaaactcca ctgcccagggt gtctacacctt caagctctgc 60  
 87 ctgctctgg cgctggcggg tctccacttc tcttcaggtt tcagccaggt caccaagtcg 120  
 88 gtgaaagaaa tggcagcact gtcctgtat tacaacattt ctatcgatga actggcgaga 180  
 89 atgcgcataat actggcagaa ggaccaacag atggtgctga gcatcatctc tggcaagtg 240  
 90 gaagtgtggc ctgagtacaa aaaccgcacc ttcccccaca tcattaacaa cctctccctt 300  
 91 atgatcctgg cactgcgcct gtcggacaag ggcacctaca cctgcgtgg tcaagaagaat 360  
 92 gagaacgggt ctttcagacg ggagcacctg acctccgtga cactgtccat cagagctgac 420  
 93 tcccctgtcc cttagataac tgacatttga catcccgccc ctaatgtgaa aaggataaga 480  
 94 tgctccgcct ctggaggattt tccagagcct cgccctcgccct ggatggaaga tggagaagaa 540  
 95 ctaaacgcgg tcaacacgac gggtgaccag gatttggaca cggagctcta cagcgtcagc 600  
 96 agtgaactgg atttcaatgt gacaataac cacagcatcg tggatgttcat caaatacggg 660  
 97 gagctgtcggt tggatgttcat tttccatgttgg agcaaaaccca agcaggagcc tccattgtat 720  
 98 cagttccat tctgggtcat tatcccagta agtgggtctt tggatgttcat tgggttagtt 780  
 99 ctctactgccc tggcctgcag acatgttgcg aggtggaaaa gaacaagaag gaatgaagag 840  
 100 acagtgggaa ctgaaaggct gtccctatac tacttaggtt ctgcgcataatc ctcgggctga 900  
 103 <210> SEQ ID NO: 4  
 104 <211> LENGTH: 912  
 105 <212> TYPE: DNA  
 106 <213> ORGANISM: Artificial Sequence  
 108 <220> FEATURE:  
 109 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 nucleotide sequence  
 112 <400> SEQUENCE: 4  
 113 atgggtcaca caatgaagtggatcacta ccacccaagg gcccattgcctt ctggctctct 60  
 114 cagctctgg tgcctactgg tctttttac ttctgttca gcatcaccgg aaagagtgtg 120  
 115 accaaaagag tggaaagaaac agtaatgttca tctgttca gatcaccatc cactgaagaa 180  
 116 ctgacaagcc ttggatcttca ttggcaaaa gatagtaaaa tggatgttca gatcctgcct 240

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/888,324

DATE: 08/02/2004  
 TIME: 11:51:23

Input Set : N:\LMOORE\PTO.LM.txt  
 Output Set: N:\CRF4\08022004\I888324.raw

117 ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300  
 118 ccccgtattg tgatcctggc tctgcgcctg tcggacagtgc gcacacctac ctgtgttatt 360  
 119 cagaaggctgt atttggaaagg ggcttataaa ctggagcacc tgacttcgt gaggtaatg 420  
 120 atcagagctg acttcctgt ccctaccata aatgatcttgc gaaatccatc tcctaataatc 480  
 121 agaaggctaa tttgctcaac ctctggaggt tttccaaaggc cccacctcta ctgggtggaa 540  
 122 aatggagaag aattaaatgc taccaacaca acagttccc aagatcctgg aactgagctc 600  
 123 tacatgatta gcagtgaact ggatttcaat gtgacaata accacagcat cgtgtgtctc 660  
 124 atcaaatacgc gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720  
 125 cctcccatgg atcagcttcc attctgggtc attatcccag taagtgggtc tttgggtgctc 780  
 126 actgcggtag ttctctactg cctggcctgc agacatgttgc cgaggtggaa aagaacaaga 840  
 127 aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900  
 128 tcctcgggct ga 912  
 131 <210> SEQ ID NO: 5  
 132 <211> LENGTH: 912  
 133 <212> TYPE: DNA  
 134 <213> ORGANISM: Artificial Sequence  
 136 <220> FEATURE:  
 137 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 138 nucleotide sequence  
 140 <400> SEQUENCE: 5  
 141 atgggtcaca caatgaagtgc gggatcacta ccacccaagc gcccattgcct ctggctctct 60  
 142 cagctttgg tgctcaactgg tcttttttac ttctgttgc gcatcaccatc aaagagtgtg 120  
 143 accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180  
 144 ctgacaagcc ttccggatcta ttggcaaaagg gatagtaaaa tgggtgtggc catcctgcct 240  
 145 ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300  
 146 ccccgtattg tgatcctggc tctgcgcctg tcggacagtgc gcacacctac ctgtgttatt 360  
 147 cagaaggctgt tttggaaagg ggcttataaa ctggagcacc tggcttcgt gaggtaatg 420  
 148 atcagagctg acttcctgt ccctaccata aatgatcttgc gaaatccatc tcctaataatc 480  
 149 agaaggctaa tttgctcaac ctctggaggt tttccaaaggc cccacctcta ctgggtggaa 540  
 150 aatggagaag aattaaatgc taccaacaca acagttccc aagatcctgg aactgagctc 600  
 151 tacatgatta gcagtgaact ggatttcaat gtgacaata accacagcat cgtgtgtctc 660  
 152 atcaaatacgc gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720  
 153 cctcccatgg atcagcttcc attctgggtc attatcccag taagtgggtc tttgggtgctc 780  
 154 actgcggtag ttctctactg cctggcctgc agacatgttgc cgaggtggaa aagaacaaga 840  
 155 aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctccgcgcaa 900  
 156 tcctcgggct ga 912  
 159 <210> SEQ ID NO: 6  
 160 <211> LENGTH: 912  
 161 <212> TYPE: DNA  
 162 <213> ORGANISM: Artificial Sequence  
 164 <220> FEATURE:  
 165 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 166 nucleotide sequence  
 168 <400> SEQUENCE: 6  
 169 atgggtcaca caatgaagtgc gggatcacta ccacccaagc gcccattgcct ctggctctct 60  
 170 cagctttgg tgctcaactgg tcttttttac ttctgttgc gcatcaccatc aaagagtgtg 120  
 171 accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180  
 172 ctgacaagcc ttccggatcta ttggcaaaagg gatagtaaaa tgggtgtggc catcctgcct 240  
 173 ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/888,324

DATE: 08/02/2004  
TIME: 11:51:23

Input Set : N:\LMOORE\PTO.LM.txt  
Output Set: N:\CRF4\08022004\I888324.raw

174 ccccgatttgc tgatcctggc tctgcgcctg tcggacagtgc gcacccatc ctgtttatt 360  
 175 cagaaggctg tttgaaagg ggcttataaa ctggagcacc tggctccgt gaggttaatg 420  
 176 atcagagctg acttccctgt ccctaccata aatgatcttgc gaaatccatc tcctaatatc 480  
 177 agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540  
 178 aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600  
 179 tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660  
 180 atcaaatacg gggagctgtc ggtgtcacag atctccctt ggagcaaacc caagcaggag 720  
 181 ccccccatttgc atcagcttcc attctgggtc attatccctt taagtgggtc tttgggtc 780  
 182 actgcggtag ttctctaccg cccggcctgc agacatgttgc cgaggtggaa aagaacaaga 840  
 183 aggaatgaag agacagtggg aactgaaagg ctgtccctt tctactttagg ctctgcgcaa 900  
 184 tcctcgggct ga 912  
 187 <210> SEQ ID NO: 7  
 188 <211> LENGTH: 912  
 189 <212> TYPE: DNA  
 190 <213> ORGANISM: Artificial Sequence  
 192 <220> FEATURE:  
 193 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 194 nucleotide sequence  
 196 <400> SEQUENCE: 7  
 197 atgggtcaca caatgaagtgc gggatcacta ccacccaaagc gcccattgcct ctggctctc 60  
 198 cagctttgg tgctcaactgg tctttttac ttctgtttag gcatcaccccc aaagagtgtg 120  
 199 accaaaagag tgaaagaaac agtaatgtca tcctgtgatt acaacacatc cactgaagaa 180  
 200 ctgacaagcc ttccggatcta ttggcaaaaag gatagtaaaa tgggtgtggc catcctgcct 240  
 201 ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300  
 202 ccccgatttgc tgatcctggc tctgcgcctg tcggacagtgc gcacccatc ctgtttatt 360  
 203 cagaaggctg tttgaaagg ggcttataaa ctggagcacc tggctccgt gaggttaatg 420  
 204 atcagagctg acttccctgt ccctaccata aatgatcttgc gaaatccatc tcctaatatc 480  
 205 agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540  
 206 aatggagaag aattaaatgc taccaacaca acagttccc aagatcctgg aactgagctc 600  
 207 tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660  
 208 atcaaatacg gggagctgtc ggtgtcacag atctccctt ggagcaaacc caagcaggag 720  
 209 ccccccatttgc atcagcttcc attctgggtc attatccctt taagtgggtc tttgggtc 780  
 210 actgcggtag ttctctaccg cccggcctgc agacatgttgc cgaggtggaa aagaacaaga 840  
 211 aggaatgaag agacagtggg aactgaaagg ctgtccctt tctactttagg ctctgcgcaa 900  
 212 tcctcgggct ga 912  
 215 <210> SEQ ID NO: 8  
 216 <211> LENGTH: 912  
 217 <212> TYPE: DNA  
 218 <213> ORGANISM: Artificial Sequence  
 220 <220> FEATURE:  
 221 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 222 nucleotide sequence  
 224 <400> SEQUENCE: 8  
 225 atgggtcaca caatgaagtgc gggatcacta ccacccaaagc gcccattgcct ctggctctc 60  
 226 cagctttgg tgctcaactgg tctttttac ttctgtttag gcatcaccccc aaagagtgtg 120  
 227 accaaaagag tgaaagaaac agtaatgtca tcctgtgatt acaacacatc cactgaagaa 180  
 228 ctgacaagcc ttccggatcta ttggcaaaaag gatagtaaaa tgggtgtggc catcctgcct 240  
 229 ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300  
 230 ccccgatttgc tgatcctggc tctgcgcctg tcggacagtgc gcacccatc ctgtttatt 360

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/888,324

DATE: 08/02/2004  
 TIME: 11:51:23

Input Set : N:\LMOORE\PTO.LM.txt  
 Output Set: N:\CRF4\08022004\I888324.raw

231 cagaaggctg ttttgaagg ggcttataaa ctggagcacc tggcttcgt gaggttaatg 420  
 232 atcagagctg acttccctgt ccctaccata aatgatctt gaaatccatc tcctaataatc 480  
 233 agaaggctaa tttgtcaac ctctggaggt tttccaaggc cccacctctg ctggttggaa 540  
 234 aatggagaag aattaaatgc taccacac aacgtttccc aagatcctgg aactgagctc 600  
 235 tacatgatta gcagtgaact ggatttcaat gtgacaata accacagcat cgtgtgtctc 660  
 236 atcaaatacg gggagctgtc ggtgtcacag atctccctt ggagcaaacc caagcaggag 720  
 237 cctcccatcg atcagcttcc attctgggtc attatccag taagtggc tttggtgctc 780  
 238 actgcggtag ttctctactg cctggcctgc agacatgtt cgaggtggaa aagaacaaga 840  
 239 aggaatgaag agacagtggg aactgaaagg ctgtccctta tctactttagg ctctgcgcaa 900  
 240 tcctcgggct ga 912  
 243 <210> SEQ ID NO: 9  
 244 <211> LENGTH: 912  
 245 <212> TYPE: DNA  
 246 <213> ORGANISM: Artificial Sequence  
 248 <220> FEATURE:  
 249 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 250 nucleotide sequence  
 252 <400> SEQUENCE: 9  
 253 atgggtcaca caatgaagt gggatcacta ccacccaagc gcccattgcct ctggctctct 60  
 254 cagctttgg tgctcaactgg tctttttac ttctgttca gcatcaccatc aaagagtgtg 120  
 255 accaaaagag taaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180  
 256 ctgacaagcc ttccggatcta ttggcaaaag gatagtaaaa tgggtgtggc catcctgcct 240  
 257 gaaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300  
 258 ccccgattt tgatcctggc tctggtgc tggacaagg gcacctacac ctgcgtgggt 360  
 259 cagaaggctg ttttgaagg ggcttataaa ctggagcacc tgacttcgt gaggttaatg 420  
 260 atcagagctg acttccctgt ccctaccata aatgatctt gaaatccatc tcctaataatc 480  
 261 agaaggctaa tttgtcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540  
 262 aatggagaag aattaaatgc taccacac aacgtttccc aagatcctgg aactgagctc 600  
 263 tacatgatta gcagtgaact ggatttcaat gtgacaata accacagcat cgtgtgtctc 660  
 264 atcaaatacg gggagctgtc ggtgtcacag atctccctt ggagcaaacc caagcaggag 720  
 265 cctcccatcg atcagcttcc attctgggtc attatccag taagtggc tttggtgctc 780  
 266 actgcggtag ttctctactg cctggcctgc aggcatgtt cgaggtggaa aagaacaaga 840  
 267 aggaatgaag agacagtggg aactgaaagg ctgtccctta tctactttagg ctctgcgcaa 900  
 268 tcctcgggct ga 912  
 271 <210> SEQ ID NO: 10  
 272 <211> LENGTH: 912  
 273 <212> TYPE: DNA  
 274 <213> ORGANISM: Artificial Sequence  
 276 <220> FEATURE:  
 277 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 278 nucleotide sequence  
 280 <400> SEQUENCE: 10  
 281 atgggtcaca caatgaagt gggatcacta ccacccaagc gcccattgcct ctggctctct 60  
 282 cagctttgg tgctcaactgg tctttttac ttctgttca gcatcaccatc aaagagtgtg 120  
 283 accaaaagag taaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180  
 284 ctgacaagcc ttccggatcta ttggcaaaag gatagtaaaa tgggtgtggc catcctgcct 240  
 285 gaaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300  
 286 ccccgattt tgatcctggc tctggtgc tggacagtg gcacctacac ctgtgttatt 360  
 287 cagaaggctg ttttgaagg ggcttataaa ctggagcacc tggcttcgt gaggttaatg 420

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/888,324

DATE: 08/02/2004  
TIME: 11:51:24

Input Set : N:\LMOORE\PTO.LM.txt  
Output Set: N:\CRF4\08022004\I888324.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:95; N Pos. 223  
Seq#:97; N Pos. 929  
Seq#:111; N Pos. 827  
Seq#:153; N Pos. 893,894  
Seq#:157; N Pos. 599  
Seq#:174; Xaa Pos. 75  
Seq#:176; Xaa Pos. 310  
Seq#:190; Xaa Pos. 276  
Seq#:232; Xaa Pos. 298  
Seq#:236; Xaa Pos. 200  
Seq#:284; Xaa Pos. 6,8,14,18,19,20,27,55,60,69,101,106,110,113,120,124,135  
Seq#:284; Xaa Pos. 149,150,151,167,168,169,177,192,197,199,208,215,218,227  
Seq#:284; Xaa Pos. 249,261,263,267,268,273  
Seq#:287; Xaa Pos. 12,25,29,40,122,129,164,196,219,241  
Seq#:290; Xaa Pos. 50,55,56,113,120,123,124,125,126,128,129,130,131,135,138  
Seq#:290; Xaa Pos. 140,170,193,194,195,209,211,252,253  
Seq#:292; Xaa Pos. 9,35,55,110,124,135,183,192,211,215,216,217,231,288,290

**VERIFICATION SUMMARY** DATE: 08/02/2004  
 PATENT APPLICATION: US/09/888,324 TIME: 11:51:24

Input Set : N:\LMOORE\PTO.LM.txt  
 Output Set: N:\CRF4\08022004\I888324.raw

L:4448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95 after pos.:180  
 L:4521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 after pos.:900  
 L:4912 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111 after pos.:780  
 L:6078 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:153 after pos.:840  
 L:6187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:157 after pos.:540  
 L:6654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:174 after pos.:64  
 L:6840 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176 after pos.:304  
 L:7791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:190 after pos.:272  
 L:10625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:232 after pos.:288  
 L:10875 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:236 after pos.:192  
 L:13579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:0  
 L:13582 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:16  
 L:13588 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:48  
 L:13591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:64  
 L:13597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:96  
 L:13600 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:112  
 L:13603 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:128  
 L:13606 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:144  
 L:13609 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:160  
 L:13612 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:176  
 L:13615 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:192  
 L:13618 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:208  
 L:13621 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:224  
 L:13624 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:240  
 L:13627 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:256  
 L:13630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:284 after pos.:272  
 L:13830 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287 after pos.:0  
 L:13833 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287 after pos.:16  
 L:13836 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287 after pos.:32  
 L:13851 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287 after pos.:112  
 L:13854 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287 after pos.:128  
 L:13860 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287 after pos.:160  
 L:13866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287 after pos.:192  
 L:13869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287 after pos.:208  
 L:13875 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287 after pos.:240  
 L:14154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:290 after pos.:48  
 L:14166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:290 after pos.:112  
 L:14169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:290 after pos.:128  
 L:14175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:290 after pos.:160  
 L:14181 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:290 after pos.:192  
 L:14184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:290 after pos.:208  
 L:14190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:290 after pos.:240  
 L:14350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:0  
 L:14356 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:32  
 L:14359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:48  
 L:14368 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:96  
 L:14371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:112  
 L:14374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:128

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/888,324

DATE: 08/02/2004

TIME: 11:51:24

Input Set : N:\LMOORE\PTO.LM.txt

Output Set: N:\CRF4\08022004\I888324.raw

L:14383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:176  
L:14389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:208  
L:14392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:224  
L:14401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:272  
L:14404 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:288